



*Cogsdill*

**DEPTH CONTROLLED  
COUNTERSINKING  
WITH THE**

*Micro Limit*

*and*

*Aëro-Matic Drive*

February 2, 1953

**DISTRIBUTED BY**

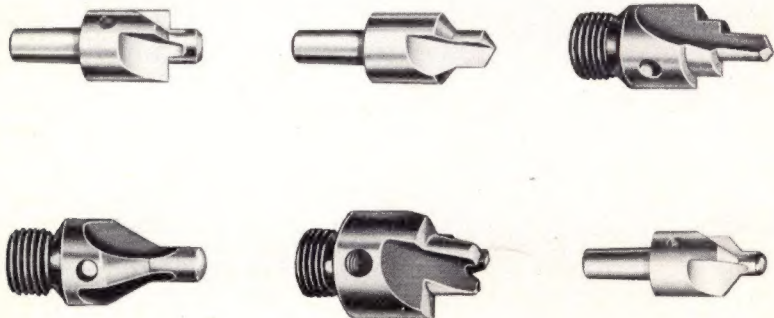
**NEW YORK STOCK**

**C. D. PROCTOR CO. 30 CHURCH ST  
WORTH 2-2488-9 N. Y. C.**

In 1940 Cogsdill introduced and standardized the first practicable depth controlled countersink -- the "Aeromatic". Thousands of these unique tools were tested and used in every major aircraft plant in the United States. While this tool was originally developed for countersinking rivet holes in aircraft work it soon became apparent that it had many other uses. New applications came into being through the experimenting and ingenuity of our engineers and metal cutting tool users.

While the Aeromatic is a sturdy usable tool, it was evident that higher production schedules and closer tolerances required a more accurate, longer-lived tool. The Micro-limit countersink drive was developed for applications requiring the ultimate in accuracy and stamina. Hardened and ground shafts and thrust plates, combined with anti-friction bearings have reduced wear to a minimum.

The adjusting features, pilot and countersink design, etc., are covered by U. S. Patents 2242510 and 2308055 with other patents pending.



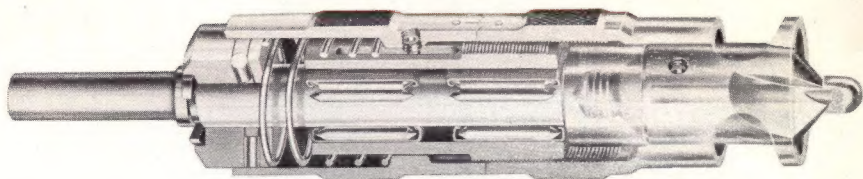
Special countersinks of one or two diameters, with solid or inserted pilots, can be furnished to your requirements. Due to the rigid construction of the Micro-limit drive, counterboring to definite limits becomes practicable.

Prices shown are net and subject to change without notice.

Special tools are priced on application.



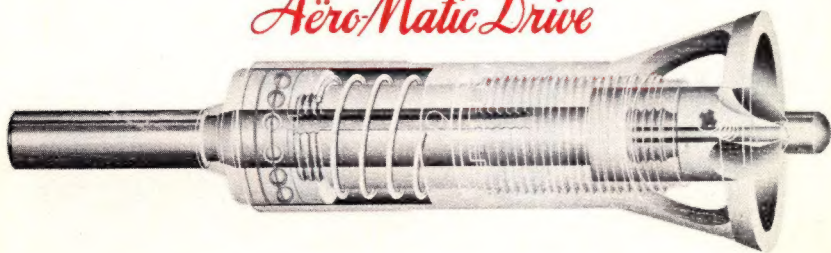
## *Micro-Limit*



The Micro-limit drive is available in two sizes for 1/2" and 7/8" diameter countersinks. Either size countersink is in turn available with threaded or tapered shank (for maximum accuracy). By stocking replacement spindles and depth control sleeves, the user may change to any of the other types of Micro-Limit drives.

When cleaning or changing the spindle for a different type countersink, the drive can be disassembled in a matter of seconds without the use of tools. A novel single spring arrangement permits instantaneous depth adjustment to .001 of an inch and also permits the depth control sleeve to contact the work before the countersink starts cutting. Spring pressure is maintained throughout the countersinking operation. See pages 4 and 5 for specifications.

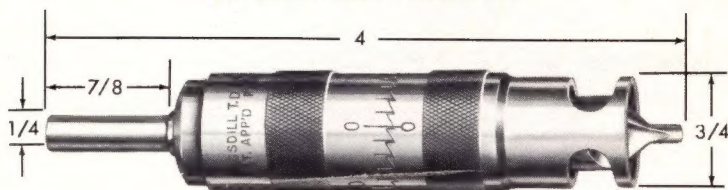
## *Aero-Matic Drive*



The Aeromatic drive is available in many sizes. Full specifications can be found on pages 6 and 7. The depth adjustment on this drive is .003" per notch. A new spring feature has been added recently which permits the control sleeve to contact the work before the countersink starts cutting. Spring pressure is maintained throughout the countersinking operation. It is also possible to disassemble the drive without tools.

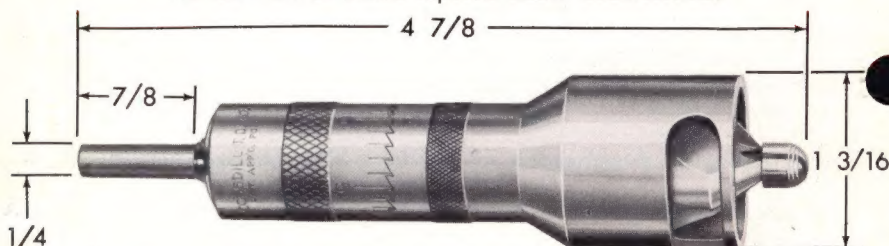
# Micro-Limit

## STANDARD DRIVES



**List No. 300** Micro-Limit Drive ..... **\$7.70 each net**  
For use with 30 series threaded shank countersinks.

**List No. 320** Micro-Limit Drive ..... **\$7.70 each net**  
For use with 32 series tapered shank countersinks.



**List No. 400** Micro-Limit Drive ..... **\$8.40 each net**  
For use with 40 series threaded shank countersinks.

**List No. 420** Micro-Limit Drive ..... **\$8.40 each net**  
For use with 42 series tapered shank countersinks.

Standard drives are furnished with sleeve as shown above but special sleeves may be furnished similar to the illustrations shown. Please specify type sleeve and size drive when ordering.

### Alternate Sleeves for Micro-Limit Drives



TYPE "A"



TYPE "B"



TYPE "C"



TYPE "D"

Interchangeable control sleeves for 300 and 320 drives ..... **\$2.25 each net**



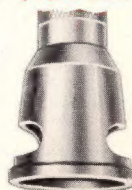
TYPE "A"



TYPE "B"



TYPE "C"



TYPE "D"

Interchangeable control sleeves for 400 and 420 drives ..... **\$6.75 each net**

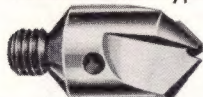


# Micro-Limit

## STANDARD COUNTERSINKS

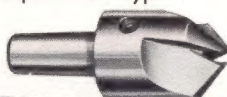
High Speed Steel  
Three flutes, R.H. Cut, Ground Radial Relief.

Threaded Shank Type



For use with 300 Drive.  
1/2" body, 3/32" pilot hole.  
1/4-28 Threaded Shank.

Taper Shank Type



For use with 320 Drive.  
1/2" body, 3/32" pilot hole.  
No. 00 Stub Taper Shank.

## STANDARD PILOTS

Carbon Steel



Patented Undercut Feature

Pilots for use with  
30 and 32 series  
Countersinks

List No.	Included Angle
30-78	78
30-82	82
30-90	90
30-100	100
30-110	110
30-120	120

\$1.65 Each Net

List No.	Included Angle
32-78	78
32-82	82
32-90	90
32-100	100
32-110	110
32-120	120

\$1.65 Each Net

List No.	Head Size
3-093	3/32
3-098	#40
3-125	1/8
3-128	#30
3-156	5/32
3-161	#20
3-187	3/16
3-250	1/4
3-312	5/16

\$ .28 Each Net

For use with 400 Drive.  
7/8" body, 3/16" pilot hole.  
7/16-20 Threaded Shank.

List No.	Included Angle
40-78	78
40-82	82
40-90	90
40-100	100
40-110	110
40-120	120

\$2.90 Each Net

For use with 420 Drive.  
7/8" body, 3/16" pilot hole.  
No. 0 Stub Taper Shank.

List No.	Included Angle
42-78	78
42-82	82
42-90	90
42-100	100
42-110	110
42-120	120

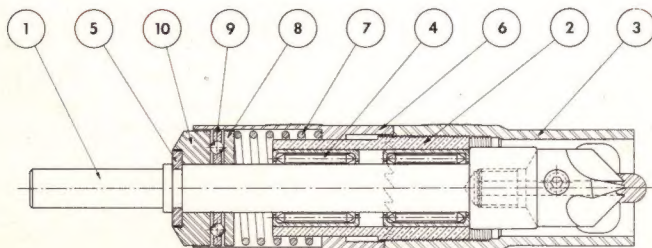
\$2.90 Each Net

Pilots for use with  
40 and 42 series  
Countersinks

List No.	Head Size
4-187	3/16
4-218	7/32
4-250	1/4
4-281	9/32
4-312	5/16
4-375	3/8
4-437	7/16
4-500	1/2
4-562	9/16

\$ .71 Each Net

### Parts List for Micro-Limit Drive



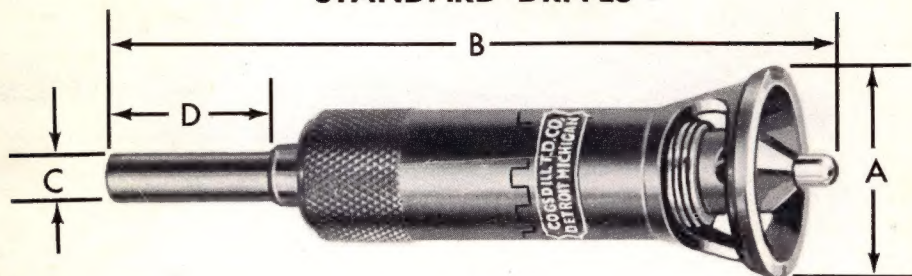
1. Spindle
2. Bearing body
3. Control sleeve
4. Needle Bearings (2)

5. Retaining clip
6. Locking sleeve
7. Spring

8. Bearing side plate
9. Thrust bearing
10. Rear thrust plate

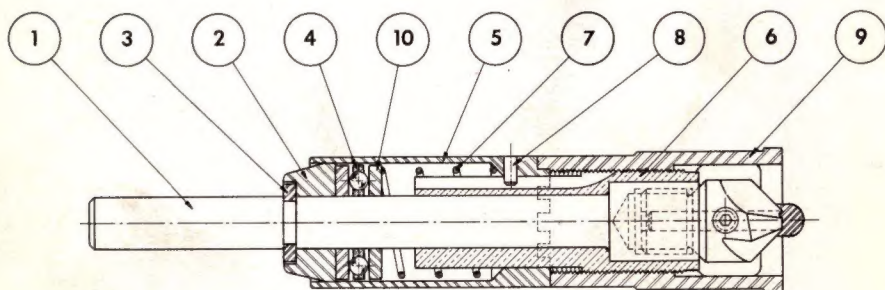
# Aero-Matic

## STANDARD DRIVES



List No.	Type Collar	A	B	C	D	Cutters & Pilots	Price Each Net
501	Bell	1"	3-1/2	1/4	27/32	AM PM	\$ 6.60
501-A	Straight	11/16	3-1/2	1/4	27/32	AM PM	\$ 6.60
601	Bell	1-3/16"	3-5/8	1/4	27/32	AL PL	\$ 7.25
601-A	Straight	7/8"	3-5/8	1/4	27/32	AL PL	\$ 7.25
701	Straight	1-3/8"	5-3/4	3/8	1-3/16	AK PK	\$18.00
801	Straight	1-1/2"	6	3/8	1-3/16	AJ PJ	\$20.00
901	Straight	1-7/8"	8	1/2	1-13/32	AH PH	\$33.75

### Parts List for Aeromatic Drive



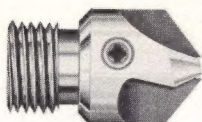
1. Spindle
2. Rear thrust plate
3. Retaining clip
4. Thrust bearing
5. Locking sleeve

6. Bearing body
7. Spring
8. Pin
9. Control sleeve
10. Bearing thrust plates (2)



# *Aero-Matic*

## COUNTERSINKS AND PILOTS



High Speed Steel  
Three flutes, R. H. Cut,  
Ground Radial Relief.



Patented Undercut Feature

Carbon Steel

### AM COUNTERSINK

.390 Body  
5/16-32 Thread

Symbol	Included Angle
AM-1	78°
AM-2	82°
AM-3	90°
AM-4	100°
AM-5	110°
AM-6	115°
AM-7	120°

**\$1.30 Each Net**

### PM PILOT

3/32" Shank

Symbol	Head Size
PM-1	3/32"
PM-2	#40(.098)
PM-3	1/8"
PM-4	#30(.1285)
PM-5	5/32"
PM-6	#20(.161)
PM-7	3/16"

**\$.28 Each Net**

### AL COUNTERSINK

9/16" Body  
5/16-32 Thread

Symbol	Included Angle
AL-1	78°
AL-2	82°
AL-3	90°
AL-4	100°
AL-5	110°
AL-6	115°
AL-7	120°

**\$1.56 Each Net**

### PL PILOT

1/8" Shank

Symbol	Head Size
PL-1	1/8"
PL-2	5/32"
PL-3	3/16"
PL-4	7/32"
PL-5	1/4"
PL-6	9/32"
PL-7	5/16"

**\$.38 Each Net**

### AK COUNTERSINK

7/8" Body  
7/16-20 Thread

Symbol	Included Angle
AK-1	78°
AK-2	82°
AK-3	90°
AK-4	100°
AK-5	110°
AK-6	115°
AK-7	120°

**\$3.39 Each Net**

### PK PILOT

3/16" Shank

Symbol	Head Size
PK-1	3/16"
PK-2	7/32"
PK-3	1/4"
PK-4	9/32"
PK-5	5/16"
PK-6	3/8"
PK-7	7/16"

**\$.71 Each Net**

### AJ COUNTERSINK

1-1/16" Body  
7/16-20 Thread

Symbol	Included Angle
AJ-1	78°
AJ-2	82°
AJ-3	90°
AJ-4	100°
AJ-5	110°
AJ-6	115°
AJ-7	120°

**\$4.43 Each Net**

### PJ PILOT

3/16" Shank

Symbol	Head Size
PJ-1	3/16"
PJ-2	7/32"
PJ-3	1/4"
PJ-4	9/32"
PJ-5	5/16"
PJ-6	3/8"
PJ-7	7/16"

**\$.71 Each Net**

### AH COUNTERSINK

1-1/4" Body  
5/8-18 Thread

Symbol	Included Angle
AH-1	78°
AH-2	82°
AH-3	90°
AH-4	100°
AH-5	110°
AH-6	115°
AH-7	120°

**\$6.52 Each Net**

### PH PILOTS

1/4" Shank

Symbol	Head Size
PH-1	1/4"
PH-2	5/16"
PH-3	3/8"
PH-4	7/16"
PH-5	1/2"

**\$1.18 Each Net**

Symbol	Head Size
PH-6	9/16"
PH-7	5/8"
PH-8	11/16"
PH-9	3/4"
PH-10	13/16"

# SERVICE

FOR THE CONVENIENCE OF THE USERS OF MICRO-LIMIT AND AERO-MATIC DRIVES, WE ARE PREPARED TO SUPPLY PARTS SO THAT DRIVES MAY BE REPAIRED IN YOUR PLANT. WHEN ORDERING REPLACEMENT PARTS PLEASE ADVISE QUANTITY, DETAIL NUMBER AND DESCRIPTION, AND THE SIZE DRIVE IN WHICH THEY ARE TO BE USED.

WE ARE ALSO IN A POSITION TO RENDER QUICK FACTORY REPAIR SERVICE AT NOMINAL CHARGE ON OUR STANDARD DRIVES. REPAIR PARTS ARE STOCK ITEMS AND DRIVES ARE RETURNED WITHOUT DELAY, REPAIRED AND GUARANTEED TO THEIR ORIGINAL ACCURACY.



## COGSDILL TWIST DRILL CO.

Detroit 21, Michigan

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